

IN THE CLAIMS

The pending claims are as follows:

1. (Previously Presented) A Motion Pictures Experts Group 4 (MPEG-4) encoder comprising:

an .mp4 file media track generator configured for generating, as a first output of encoding by said encoder, an .mp4
5 file comprising, as encoded content, a media track; and

a fragmentation structure file generator configured for generating a fragmentation structure file as a second output of encoding by said encoder simultaneously with said first output and as a separate file, said fragmentation file not being network
10 specific, both outputs being configured as input for a hinter program configured for creating as output, based on said second output and an output of said media track generator, a hinted file that comprises said output of said media track generator and a hint track that contains pre-segmentation information usable at a server
15 in segmenting, into network packets, said output of said media track generator in said hinted file, said hinted file being configured with a specification of a number of network packets for each MPEG-4 data entity in said output of said media track generator in said hinted file and, for each of said packets for
20 said entity, a size in bits of a fragment to be created by said segmenting.

2. (Previously Presented) A processor receiving a coded signal from a computer-readable medium, said signal being created from output of a Motion Pictures Experts Group 4 (MPEG-4) encoder to form a bitstream having two sides and including, on one of the sides, media data stored in an MPEG-4 file format and, on the other of the sides, pre-segmentation information, said pre-segmentation information not being network specific, indicating how to fragment MPEG-4 data entities in said media data in order to match size of resulting packets for transmission on a transmission network to a size specific to said transmission network.

3. (Previously Presented) An MPEG-4 terminal having a processor for receiving a coded signal according to claim 2, said processor being configured for reading the received signal according to a file structure having the following syntax:

Loop on MPEG-4 Access Units until end-of-file, and, for each Access Unit:

Read a specified number N of fragments;

Loop on fragments until N, wherein, for each fragment:

Read a size, in bits, of the fragment;

End-of-loop on fragments;

End-of-loop on Access Units.

4. (Previously Presented) An MPEG-4 terminal according to claim 3, in which a hinter program is provided for generating, from an .mp4 file, a new.mp4 file containing hint tracks that are both

media and network specific, said new .mp4 file being transmitted

5 for the reception by said processor as said coded signal.

5. (Previously Presented) The encoder of claim 1, wherein said fragmentation structure file generator is further configured so that said generating of said fragmentation structure file occurs in response to a request for said content by a client of said server.

6. (Previously Presented) The encoder of claim 1, wherein said server is a video-on-demand server.

7. (Previously Presented) The encoder of claim 1, wherein said .mp4 file is configured for storing a plurality of media tracks, and respective hint tracks, said respective hint tracks including, for adaptation of encoded content of the plural media tracks to a
5 size of said network packets of a given type of network, said pre-segmentation information indicating how to fragment MPEG-4 data entities stored in said plural media tracks to match said size, said pre-segmentation information being derived from information in said fragmentation structure file for structuring a coded bit
10 stream into entities that are independent to recover some context even if a packet from among said network packets is lost.

8. (Previously Presented) The server of claim 1, comprising the encoder and said hinter program.

9. (Previously Presented) The server of claim 1, further configured for archiving the fragmentation structure file for subsequent retrieval as said input.

10. (Previously Presented) The server of claim 9, wherein said retrieval occurs in response to a request, by a client of said server, for content.

11. (Previously Presented) The server of claim 10, wherein said fragmentation structure file generator is further configured so that said generating of said fragmentation structure file occurs in response to a previous request, by a client of said server, for
5 content.

12. (Previously Presented) The processor of claim 2, wherein the coded signal is received as a hinted file comprising an output of a media track generator and a hint track that contains pre-segmentation information usable at a server in segmenting, into
5 network packets, said processor performing said segmenting on the received hinted file.

13. (Previously Presented) The processor of claim 12, wherein said hinted file is transmitted, for said reception by said processor, as a bit stream having two sides and that comprises, on one of said two sides, said output of said media track generator and, on the
5 other of said two sides, said hint track.

14. (Previously Presented) An MPEG-4 terminal having said processor of claim 13 for said receiving of the coded signal, said processor being configured for reading the received signal according to a file structure having the following syntax:

5 Loop on MPEG-4 Access Units until end-of-file, and, for each Access Unit:

 Read a specified number N of fragments;

 Loop on fragments until N, wherein, for each fragment:

 Read a size, in bits, of the fragment;

10 End-of-loop on fragments;

 End-of-loop on Access Units.

15. (Previously Presented) The terminal of claim 14, wherein said size of the fragment to be read is represented in said bit stream by ASCII delimited by a separator character.

16. (Previously Presented) A method for Motion Pictures Experts Group 4 (MPEG-4) encoding comprising:

 generating, as a first output of said encoding, an .mp4 file comprising, as encoded content, a media track; and

5 generating a fragmentation structure file as a second output of said encoding simultaneously with said first output, said fragmentation file not being network specific, both outputs being configured as input for a hinter program configured for creating as output, based on said second output and an output of the media

10 track generating, a hinted file that comprises said output of said
media track generating and a hint track that contains pre-
segmentation information usable in segmenting, into network
packets, said output of said media track generating in said hinted
file, said hinted file being configured with a specification of a
15 number of network packets for each MPEG-4 data entity in said
output of said media track generating in said hinted file and, for
each of said packets for said entity, a size in bits of a fragment
to be created by said segmenting.

17. (Previously Presented) A method for structuring a bitstream
for transmitting the hinted file of claim 16 for reading by a
processor, said method comprising configuring said bitstream
according to the following syntax:

5 Loop on MPEG-4 Access Units until end-of-file, and, for
each Access Unit:

 Read a specified number N of fragments;
 Loop on fragments until N, wherein, for each

fragment:

10 Read a size, in bits, of the fragment;
 End-of-loop on fragments;

 End-of-loop on Access Units.

18. (Previously Presented) The method of claim 16, wherein said
server is a video-on-demand server.

19. (Previously Presented) The method of claim 16, further comprising archiving the fragmentation structure file for subsequent retrieval as said input.

20. (Previously Presented) The method of claim 19, wherein said retrieval occurs in response to a request, by a client of said server, for content.